Customizing Natural to boost your flexibility

With the emergence of Web portals and e-business, application development for mainframe and mixed platform environments are experiencing a renaissance. Software AG's continuing development of Natural – one of the world's most powerful 4GL programming languages – and its additional products is a big part of that resurgence.

Software AG provides a wide range of additional Natural products for:
- Natural's Single Point of Development
- Improving development productivity
- Production environment integration
- Moving to XML and Web

NATURAL'S SINGLE POINT OF DEVELOPMENT

Natural for Windows - A stand-alone version of Natural that features the Natural Studio. Natural Studio integrates Tree Views, Component Browser, Class Builder and several Editors into a common work area. It acts as the client for remote development of applications when connected to Natural running on a target platform through a Natural Development Server Plug-in.
Platforms: Windows

Natural Development Server Plug-in for OS/390 - Enables remote development of applications with Natural running on an OS/390 mainframe from a Natural development client on the Windows desktop.
Platforms: OS/390, z/OS; Planned: VSE/ESA, AIX, HP-UX, Sun Solaris, BS2000/OSD

IMPROVING DEVELOPMENT PRODUCTIVITY

Predict - An active data dictionary that serves as the central repository of information for all people involved in developing, running and maintaining application software.
Platforms: Mainframes, Unix, OpenVMS, Windows

Predict Application Control - A flexible tool for controlling Natural and

other applications throughout the software life cycle, and for ensuring the integrity of applications in the production environment. Predict Application Control resides on the mainframe, but it can also incorporate Natural objects from other platforms.
Platforms: Mainframes

Natural Construct - A model- based application generator for rapid application development. Natural de-

velopers in achieving higher productivity goals than are obtainable using Natural and Predict alone. At the same time it helps to standardize and control the application development process.
Platforms: Mainframes, Unix

Construct Spectrum - A development environment for creating client/server applications with the Natural language used on the server and Visual Basic (VB) used on the Windows-based client.
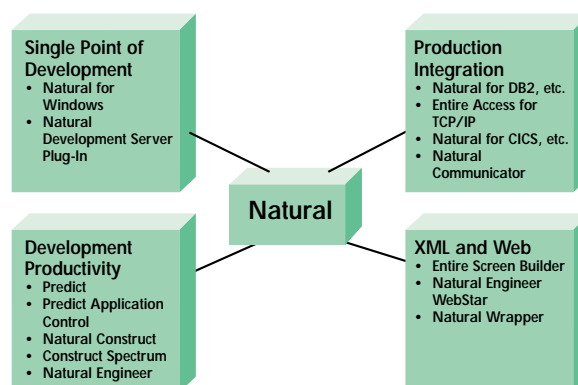Platforms: Server: Mainframes; Client: Windows

Natural Engineer - A versatile code analysis and re-structuring tool that enables the Natural developer to quickly and securely maintain and re-engineer very large and long-lived business applications without extensive costs. It helps to accurately identify the full impact of modifications and enables faster response to new technological challenges such as the Internet.
Platforms: Mainframes, Windows

PRODUCTION ENVIRONMENT INTEGRATION

Database Interfaces - The following options enable Natural applications on mainframe platforms to access and update data stored in a variety

Single Point of Development
- Natural for Windows
- Natural Development Server Plug-In

Production Integration
- Natural for DB2, etc.
- Entire Access for TCP/IP
- Natural for CICS, etc.
- Natural Communicator

Natural

Development Productivity
- Predict
- Predict Application Control
- Natural Construct
- Construct Spectrum
- Natural Engineer

XML and Web
- Entire Screen Builder
- Natural Engineer WebStar
- Natural Wrapper

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of mainframe DBMSs.
Platforms: Mainframes
- Natural for DB2
- Natural for SQL/DS
- Natural for VSAM
- Natural for DL/I

Entire Access for TCP/IP
Enables Natural applications on Windows and Unix platforms to access and update data stored in relational DBMSs on these platforms. Supported systems include DB2, Oracle, MS SQL Server, Informix, Sybase, Adabas D and more.
Platforms: Windows, Unix

TP Monitor Interfaces
When developing applications for the following transaction processing environments, no environment-specific programming is required.
Platforms: Mainframes
- Natural under CICS
- Natural under Com-plete
- Natural under IMS/TM
- Natural under TIAM
- Natural under TSO
- Natural under UTM

Natural Security - A comprehensive system to control and check the access to a Natural environment. Individual security profiles can be created for users, libraries, database files and utilities.
Platforms: Mainframes, Windows, Unix, OpenVMS

Natural SAF Security - An optional extension to Natural Security, it is used to secure Natural resources such as user IDs, libraries, and programs via an external SAF-compliant security system such as RACF, CA-ACF2, or CA-Top Secret.
Platforms: Mainframes

Natural Optimizer Compiler - Used to analyze and improve the performance of Natural applications on mainframes. Speeds up the execution of Natural statements through compilation into machine language.
Platforms: Mainframes

Natural Communicator - A subset of EntireX Communicator, it allows for RPC communication between a Natural server on mainframes and Natural clients on open systems.
Platforms: Mainframes (server), any (client)

Natural ISPF - Software AG's implementation of IBM's Interactive System Productivity Facility. It allows a developer to configure and manage system environments, develop and test system or application programs, and access system files.
Platforms: Mainframes

MOVING TO XML AND WEB
Entire Screen Builder - Provides a very simple cosmetic facelift to character-mode Natural applications. The application remains unchanged. The end user, however, uses the application now through either a Web viewer running in a browser or a Windows viewer running as a separate Windows application.
Platforms: Windows (server), any (Natural application)

Natural Engineer WebStar - Leverages your investment by transforming a character-mode Natural application into a modified Natural application that can be accessed through a Web browser. Based on XML and related standards like XSL, a Natural application is equipped with a highly flexible presentation tier. Furthermore, this approach is fully compliant with the planned new Natural statements for programming XML-fuelled XSML-based presentation clients.
Platforms: OS/390 or z/OS, both under CICS or Com-plete

Natural Wrapper - Supports two scenarios: First, it allows a VB or Java client to communicate with a Natural server on the mainframe. Second, via an XML interface, it allows Natural functionality that resides on the mainframe to be published as Web services. Requires Natural Communicator as pre-requisite.
Platforms: Mainframes (server), any (client)

Please contact Software AG or visit http://www.adabasnatural4ever.com for additional information.

Software AG
Corporate Headquarters
Uhlandstraße 12
64297 Darmstadt/Germany
Tel.:   +49-61 51-92-0
Fax: +49-61 51-92-11 91
www.softwareag.com

SOFTWARE AG